

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through and a substrate mount site provided in the gas flow path to mount a substrate;

a heater that is disposed outside of the reaction vessel and close to the substrate mount site;

a cooling device ~~temperature control means~~ that is disposed outside of the reaction vessel and opposite to the heater ~~substrate mount site and close to the reaction vessel~~ to control an ~~the~~ internal temperature of the reaction vessel; and

a thermal conductivity adjusting member that is disposed between the reaction vessel and the cooling device ~~temperature control means~~;

wherein the thermal conductivity adjusting member comprises ~~has~~ a first section with a thermal conductivity different from a ~~the~~ section other than the first section along the gas flow path to lower a thermal diffusion effect of the source gas in the first section.

2. (Cancelled)

3. (Currently amended) The semiconductor film formation device according to claim 1, wherein:

the first section comprises ~~has~~ an interspace formed between the reaction vessel and the thermal conductivity adjusting member.

Serial No. 10/803,087
Docket No. PHCF-04015
HIR.096

4. (Currently amended) The semiconductor film formation device according to claim 3,
wherein:

the interspace comprises ~~has~~ a variable height along the gas flow path.

5. (Currently amended) The semiconductor film formation device according to claim 1,
wherein:

the first section comprises ~~is of~~ a material whose thermal conductivity is different
from that of a ~~the other~~ section other than the first section.

6. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through
and a substrate mount site provided in the gas flow path to mount a substrate;

a heater that is disposed outside of the reaction vessel and close to the substrate
mount site; and

a cooling device ~~temperature control means~~ that is disposed outside of the reaction
vessel and opposite to the heater ~~substrate mount site and close to the reaction vessel~~ to
control an ~~the~~ internal temperature of the reaction vessel;

wherein the reaction vessel comprises ~~has~~ a first section with a wall thickness smaller
than ~~a the other~~ section other than the first section to form an interspace between the reaction
vessel and the cooling device ~~temperature control means~~ to lower a thermal diffusion effect of
the source gas in the first section.

Serial No. 10/803,087
Docket No. PHCF-04015
HIR.096

7. (Cancelled)

8. (Currently amended) The semiconductor film formation device according to claim 6,
wherein:

the interspace comprises has a variable height along the gas flow path.

9. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through
and a substrate mount site provided in the gas flow path to mount a substrate;

a heater that is disposed outside of the reaction vessel and close to the substrate
mount site;

a cooling device ~~temperature control means~~ that is disposed outside of the reaction
vessel and opposite to the heater ~~substrate mount site and close to the reaction vessel~~ to
control an ~~the~~ internal temperature of the reaction vessel;

a plate member that is disposed opposite to the substrate mount site in the gas flow
path; and

a thermal conductivity adjusting member that is disposed between the cooling device
~~temperature control means~~ and the plate member;

wherein the thermal conductivity adjusting member comprises ~~has~~ a first section with
a thermal conductivity different from a ~~the other~~ section other than the first section along the
gas flow path to lower a thermal diffusion effect of the source gas in the first section.

Serial No. 10/803,087
Docket No. PHCF-04015
HIR.096

10. (Cancelled)

11. (Currently amended) The semiconductor film formation device according to claim 9
wherein:

the first section comprises has an interspace formed between the reaction vessel and
the thermal conductivity adjusting member.

12. (Currently amended) The semiconductor film formation device according to claim 11,
wherein:

the interspace comprises has a variable height along the gas flow path.

13. (Currently amended) The semiconductor film formation device according to claim 11,
wherein:

the first section comprises ~~is of~~ a material whose thermal conductivity is different
from that of ~~a the other~~ section other than the first section.

14. (Currently amended) A semiconductor film formation device, comprising:

a reaction vessel that includes a gas flow path to allow a source gas to pass through
and a substrate mount site provided in the gas flow path to mount a substrate;

a heater that is disposed outside of the reaction vessel and close to the substrate
mount site;

a cooling device ~~temperature control means~~ that is disposed outside of the reaction

Serial No. 10/803,087
Docket No. PHCF-04015
HIR.096

vessel and opposite to the heater ~~substrate mount site and close to the reaction vessel~~ to

control an ~~the~~ internal temperature of the reaction vessel; and

a plate member that is disposed opposite to the substrate mount site in the gas flow path;

wherein the reaction vessel comprises ~~has~~ a first section with a wall thickness smaller than ~~a the other~~ section other than the first section to form an interspace between the reaction vessel and the cooling device ~~temperature control means~~ to lower a thermal diffusion effect of the source gas in the first section.

15. (Cancelled)

16. (Currently amended) The semiconductor film formation device according to claim 14,

wherein:

the interspace comprises ~~has~~ a variable height along the gas flow path.